

**AMENDMENTS TO THE SPECIFICATION:**

Please replace the corresponding paragraphs of the specification with the following amended paragraphs:

[0006] In the method, the processing space, with a smooth lateral area  $A_m$  (housing surface), a free volume  $V_f$  as well as the outer diameter of the screw  $D_a$  and the internal diameter of the screw  $D_i$  of the screws rotating only with respect to their own axis in the same direction and also having a smooth surface, is designed in such a manner that at least one part of the processing area has a ratio  $A_m^3/V_f^2$  between 1020 and 3050 for twin flighted screw elements and a ratio  $A_m^3/V_f^2$  between 2000 and 7300 for triple flighted screw elements at a  $D_a/D_i$  ratio of 1.3 to 1.7. In this context, the free volume  $V_f$  refers to the receiving capacity of the components that are supplied. Each volume unit of the product is provided with a large surface for cooling/heating and degassing the product, which permits smooth handling of the components that are supplied and, therefore, high quality of the final product. The smooth lateral area of the extruder processing space and the smooth surface of the self-cleaning screws ensure that the extruder is fully self-cleaning.

[0013] It can be advantageous to select the  $A_m^3/V_f^2$  ratio in such a manner that in twin flighted screw elements, such ratio is  $1500 < A_m^3/V_f^2 < 2030$ , and in triple flighted screw elements, such ratio is  $3000 < A_m^3/V_f^2 < 5090$ .

[0015] In the method, the processing space of the extruder 1, with a smooth wedge surface ~~[(7)]~~ (2)  $A_z$ , a free volume (8)  $V_f$  as well as the outer diameter (5)  $D_a$  and the internal diameter (6)  $D_i$  of the screws 3 rotating only with respect to their own axis in the same ~~[[sense]]~~ direction and also having a smooth surface, is designed in such a manner that at least one part of the processing area has a ratio

$Az^3/Vf^2$  between 0.5 and 2.11 for twin flighted screw elements and a ratio  $Az^3/Vf^2$  between 0.02 and 1.50 for triple flighted screw elements at a  $Da/Di$  ratio of 1.3 to 1.7. The high percentage of wedge areas leads to a high number of rearrangement processes and therefore good mixing properties. In particular in case several wedge areas are used, increased axial flow of the material is achieved, which contributes to reducing the residence time of the product in the extruder. Once again, the product is processed in a less impairing manner by using a plurality of screws with the lowest possible screw diameter in combination of low speeds of rotation of up to 600 rpm. The resulting shearing and kneading forces hardly impair the product. The plurality of screws results in a short length of the processing step with a high ratio between the specific wedge surface and the free volume. Once again, the smooth wedge area and the smooth surface of the self-cleaning screws ensure complete self-cleaning of the processing space.

**[0020]** It is particularly advantageous to select the  $Am^3/Vf^2$  ratio in such a manner that in twin flighted screw elements, such ratio is between 1020 and 3050 and in triple flighted screw elements, the  $Am^3/Vf^2$  ratio is between 2000 and 7300, and one of the components supplied as an elastomer.

**[0022]** In another exemplary embodiment of the method, the  $Am^3/Vf^2$  ratio is between 1500 and 2300 for twin flighted screw elements, and between 3000 and 5090 for triple flighted screw elements.

**[0036]** As a system for this method, for example, a multi-shaft extruder rotating in the same **[[sense]]** direction, in particular an annular twelve-shaft extruder is suited, although other constructive types, such as non-annular multi-shaft extruders or annular extruders with a different number of shafts may also be used.